

**Product/Service Description Document**  
**Experimental Snowfall Probability product**  
**WFO Philadelphia/Mount Holly NJ**

**Part I - Mission Connection**

- a. Product Description - The National Weather Service's (NWS) Experimental Snowfall Probability Product provides a tabular representation of the probabilities for various snowfall accumulations for an upcoming winter storm. Probabilities are rounded to the nearest 5 percent value, and are made available for five locations in the Philadelphia/Mount Holly Weather Forecast Office Service area. Probability values are given for the following snowfall accumulation amounts: two inches, four inches, six inches, nine inches, twelve inches, eighteen inches, and twenty-four inches. This product is issued one time for each storm event, and the criterion for issuance is the issuance of a Winter Storm Watch for any part of the office's service area.
- b. Purpose - The Experimental Snowfall Probability product is based on an analysis of the Mount Holly office's performance forecasting snowfall amounts for significant winter storms. The range of probabilities for various snowfall amounts is intended to give the customer an appreciation for the potential range of snowfall amounts during an event.
- c. Audience - The target audience for this experimental product is the more sophisticated customer for winter weather products. For example, a customer who is very sensitive to snowfall amounts in excess of 12 inches may find it useful to know that a snowfall forecast of six to ten inches carries a 20% risk of 12 inches or more of snowfall.
- d. Presentation Format - The Experimental Snowfall Probability Product is an alphanumeric product laid out in a tabular format for ease of reading.
- e. Feedback Method - We are always seeking to improve our products based on user feedback. Comments regarding the Experimental Snowfall Probability Product should be sent to:

National Weather Service  
Attn: Gary Szatkowski  
732 Woodlane Road  
Mount Holly, NJ 08060

or e-mail comments to: [gary.szatkowski@noaa.gov](mailto:gary.szatkowski@noaa.gov)

## Part II - Technical Description

- a. Format and Science Basis - The Experimental Snowfall Probability Product is composed of probability information in alphanumeric form laid out in a tabular format. The basis for the product is a statistical analysis of the historical forecast performance by the Mount Holly office for snowfall.

THE PROBABILITIES GIVEN BELOW ARE BASED ON A COMBINATION OF STATISTICAL THEORY, OUR SNOWFALL FORECASTS OVER THE PAST FEW WINTERS, AND THE MOST LIKELY SNOWFALL TOTALS FOR THIS POTENTIAL STORM. THE PERIOD OF EXPECTED SNOWFALL IS XXXXXX INTO XXXXX NIGHT.

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PROBABILITY (PERCENT) OF REACHING OR EXCEEDING  
THE FOLLOWING STORM-TOTAL SNOWFALL AMOUNTS (INCHES)

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STATION	2IN	4IN	6IN	9IN	12IN	18IN	24IN
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MPO	>95	>95	90	80	50	15	5
ABE	>95	95	90	65	30	10	<5
PHL	95	90	75	40	20	5	<5
ACY	95	80	50	20	10	<5	<5
GED	85	50	25	10	5	<5	<5

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PROBABILITIES ARE ROUNDED TO THE NEAREST 5 PERCENT.

STATION IDENTIFIERS:

MPO - MOUNT POCONO, PA (MOUNT POCONO AIRPORT)  
ABE - ALLENTOWN, PA (LEHIGH VALLEY INTERNATIONAL AIRPORT)  
PHL - PHILADELPHIA, PA (PHILADELPHIA INTERNATIONAL AIRPORT)  
ACY - POMONA, NJ (ATLANTIC CITY INTERNATIONAL AIRPORT)  
GED - GEORGETOWN, DE (SUSSEX COUNTY AIRPORT)

MORE INFORMATION ON THIS EXPERIMENTAL PRODUCT CAN BE FOUND ON THE NWS MOUNT HOLLY INTERNET HOMEPAGE AT [WWW.ERH.NOAA.GOV/ER/PHI](http://WWW.ERH.NOAA.GOV/ER/PHI).

- b. Product availability - The product is issued once for each winter storm event. The criterion for issuance is the issuance of a Winter Storm Watch for any part of the Mount Holly Service area. The product is appended to the end of the Winter Storm Watch (WSW) product.